### RESEARCH AID

# LABOR SUPPLY AND EMPLOYMENT IN POLAND 1950-58



CIA/RR RA 59-8 April 1959

# CENTRAL INTELLIGENCE AGENCY

OFFICE OF RESEARCH AND REPORTS

FOR OFFICIAL USE ONLY

RESEARCH AID

LABOR SUPPLY AND EMPLOYMENT IN POLAND 1950-58

CIA/RR RA 59-8

CENTRAL INTELLIGENCE AGENCY
Office of Research and Reports

FOR OFFICIAL USE ONLY

Approved For Release 1999/09/08: CIA-RDP79S01046A000600170001-7

FOR OFFICIAL USE ONLY

#### CONTENTS

		Page
I. II.	General	2
	Appendixes	
App	endix A. Methodology	19
App	endix B. Source References	25
	Tables	
ı.	Population of Poland, by Age and Sex, 1950, 1955-58	3
2.	Civilian Employment in Poland, by Economic Sector, 1950, 1953-58	24
3.	Nonagricultural Employment in Poland, by Branch and Sector, 1950, 1953-58	5
<u>,</u>	Women Employed in the Nonagricultural Branches of the Socialist Sector in Poland, 1953-57	7
5.	Industrial Employment in the Socialist Sector in Poland, by Branch, 1950, 1956-57	8
6.	Structure of Industrial Employment in Poland, 31 December 1956	9
7.	Industrial Employment in the Socialist Sector in Poland. by Branch and by Location. 31 December 1957	15

FOR OFFICIAL USE ONLY

## LABOR SUPPLY AND EMPLOYMENT IN POLAND\* 1950-58

#### I. General.

This research aid presents data on labor supply and employment in Poland in 1950-58. Most of the data in Tables 1 through 7\*\* were obtained from the statistical yearbooks published annually since 1955 by the Central Statistical Office (Glowny Urzad Statystyczny) of Poland. 1/\*\*\* Because the data in these yearbooks relate almost exclusively to the socialist sector\*\*\*\* of the economy, much of the data on employment in the private and cooperative sectors in agriculture and in the private sector in the nonagricultural branches has been estimated. The series of data shown in Tables 2 and 3† are therefore of varying degrees of reliability. The methods and procedures used to estimate employment outside the socialist sector are described in Appendix A.

The distribution of employment by branch and sector of the economy shown in Tables 2 and 3 relates to 1950 and 1953-58. Data for 1951 and 1952 do not appear, because the information available for those years was not sufficient to permit valid and comparable estimates.

In terms of labor supply and its utilization, information is lacking on the distribution of all employed persons by age and sex. Consequently, trends in the utilization of the labor supply in Poland can be inferred only in the most general terms from the data in Tables 1 and 2.††

<sup>\*</sup> The estimates and conclusions in this research aid represent the best judgment of this Office as of 15 March 1959.

<sup>\*\*</sup> Tables 1 through 7 follow on pp. 3 through 17, below.

<sup>\*\*\*</sup> For serially numbered source references, see Appendix B.

\*\*\*\* The term sector in this research aid is used to designate the

<sup>\*\*\*\*</sup> The term sector in this research aid is used to designate the category of "ownership" of an economic activity. The term branch refers to the type of activity. The term socialist sector follows Polish usage and in reference to agriculture and forestry includes all stateowned enterprises but excludes all cooperatives. In reference to non-agricultural branches of the economy, the term includes both state-owned enterprises and cooperatives.

<sup>+</sup> Pp. 4 and 5, respectively, below.

tt Pp: 3 and 4, respectively, below.

FOR OFFICIAL USE ONLY

The data on employment contained in this research aid relate only to employed civilians, both the unemployed and the armed forces being excluded.

Poland does not report the extent of unemployment except for those persons who register as "looking for work" at government employment exchanges. Such persons numbered 30,656 at the end of 1955, 38,247 a year later, and 31,937 at the end of 1957. 2/ Although these figures probably are indicative of the trend of unemployment over these years, their relationship to the level of total unemployment is not known.

Poland does not publish data on the strength of its armed forces. An indication of their size on 3 December 1950, however, is given by the fact that 395,000 persons were excluded from a published distribution of the population by age and sex. Almost all of the excluded persons were men in the age group 20 to 29. 3/

#### II. Industrial Classification.

On 1 January 1956, Poland changed the industrial classification system used in its statistical reporting. This change destroyed the comparability between detailed data on industrial employment published before 1956 and those published later. Although the data on industrial employment in 1950 as shown in Table 5\* have been adjusted by Polish statisticians to conform to current definitions, similarly adjusted data have not been provided for the period 1951-55.

The present Polish industrial classification system is similar in most respects to the industrial classification systems used by all other European Satellites except East Germany. It differs from the industrial classification system used by the USSR in that it includes the felling and primary processing of timber in forestry rather than in industry, whereas such activities in the USSR are classified in the timber industry.

<sup>\*</sup> P. 8, below.

FOR OFFICIAL USE ONLY

Population of Poland, by Age and Sex g/ 1950, 1955-58 b/

Table 1

				The	Thousand Persons
Category	1950	1955	1956	1957	1958
Both sexes	√2 <u>52,009</u> ≤/	27,544	28,070	28,535	29,061
Men	11,941	13,229	13,501	13,743	14,015
0 to 13 years 14 to 15 years Working ages $\underline{a}/$	3,458 485 7,135	4,159 432 7,700	4,340 403 7,787	4,509 391 7,841	4,679 392 7,904
16 to 17 years 18 to 29 years 30 to 39 years 40 to 49 years 50 to 59 years	μ68 2,702 1,417 1,586 962	2, 804 1, 646 1, 590 1, 590 1, 212	447 2,798 1,753 1,529 1,260	426 2,730 1,882 1,456 1,307	394 2,784 1,942 1,424 1,360
60 years and over	863	938	97.1	1,002	1,040
Women	13,068	14,315	14,569	14,792	15,046
0 to 13 years 14 to 15 years Working ages $\underline{d}/$	3,367 <sup>477</sup> 7,435	4,002 422 7,802	4,171 394 7,854	4,322 384 7,856	4,477 386 7,877
16 to 17 years 18 to 29 years 30 to 39 years 40 to 49 years 50 to 54 years	4,64 2,826 1,672 1,773 700	441. 2,853 1,864 1,845 1,845 799	2,833 1,960 1,792 828	4.18 2,817 2,059 1,720 842	. 2,789 2,184 2,184 1,652 864
55 years and over	1,789	5,089	2,150	2,230	2,306

a. \( \frac{4}{15}\) of 31 December of each year.

b. \( \hat{As} \) of 31 December of each year.

c. The published results of the census of 1950 cmitted 395,000 persons who apparently comprised the Armed Forces establishment. the figures shown above, the entire group was added to the category Men 18 to 29 years. \( \frac{5}{2}\) years. \( \frac{5}{2}\) is a defined by the Central Statistical Office of Poland -- are 16 through 59 for men and 16 through 54 for women.

д

 $\infty$ 

Ŋ Table

FOR OFFICIAL USE ONLY

छो Economic Sector Civilian Employment in Poland, by 1950, 1953-58 b

						Thousan	Thousand Persons
Economic Sector	1950	1953	1954	1955	1956	1957	1958
	12,133	12,884	13,126	13,381	13,676	13,981	14,113
Agriculture and forestry	7,142	7,100	7,128	7,177	7,237	7,296	7,356
Agriculture	7,042	6,998	7,028	7,083	7,123	7,169	7,215
Socialist $\underline{c}/$ Cooperative $\underline{b}/$ Private	344 37 6,661	459 322 6,217	496 385 6,147	519 413 6,151	556 59 6,508	519 47 6,603	467 47 6,701
Forestry							
Socialist c/	001	102	100	ま	114	127	141
Nonagriculture	4,991	5,784	5,998	6,204	6,439	6,685	6,757
Socialist d/	4,389	5,464	5,667	5,885	6,117	6,242	6,307
State Cooperative	N.A. N.A.	4,824 4,040	4,984 683	5,167 718	5,379 738	5,467 775	5,520 787
Private	602	320	331	31.9	322	1443	1450

For sources and methodology, see Appendix A. The figures for agricultural cooperatives relate to the end of the year; all other figures are annual averages.

c. The term socialist sector as used in Poland in reference to agriculture and forestry includes all state-owned enterprises but excludes all cooperatives.

d. The term socialist sector as used in Poland in reference to the nonagricultural branches includes both state-owned enterprises and cooperatives.

FOR OFFICIAL USE

FOR OFFICIAL USE ONLY

Nonagricultural Employment in Poland, by Branch and Sector  $\underline{a}/*$  1950, 1953-58  $\underline{b}/$ 

Table 3

ersons	1958	6,757	3,164	2,564 363 237	20 217	717	678 39 a	645	634 11
Thousand Persons	1957	6,685	3,130	2,540 360 230	200	731	d/10	621	610 111 g
47	1956	6,439	2,955	2,470 332 153	11 142	745	706 a/39	591	578 a/13
	1955	6,204	2,832	2,370 321 141	11	730	695 35 a/	562	549 13
	1954	5,998	2,719	2,279 297 143	10 133	743	티팅	543	528 15
	1953	5,784	2,602	2,186 280 136	12 124	773	3000	513	£ 502
	1950	4,991	2,222	2,002	62 158	523	503 2/203	457	453 c/2
	Branch and Sector	Total	Industry and handicrafts	State Cooperative Private	Industry Handicrafts	Construction	State Cooperative Private	Transport and communications	State Cooperative Private

<sup>\*</sup> Footnotes for Table 3 follow on p. 6.

FOR OFFICIAL USE ONLY

Table 3

व Branch and Sector рĵ Nonagricultural Employment in Poland, 1950, 1953-58 b

(Continued)

	(	/*			다	Thousand Persons	ersons
Branch and Sector	1950	1953	1954	1955	1956	1957	1958
Trade	622	650	658	689	713	734	<u>156</u>
State Cooperative Private	135 135	347	359 258 41	382	394	369 303 62	381 313 62
Other	1,167	1,246	1,335	1,391	1,435	1,469	1,475
State and cooperative	7776	1,109	1,189	1,249	1,305	1,318	1,324
Communal economy Social and cultural services Banks and financial institutions Administration and justice Nonproductive services <u>g</u> /	386	108 521 342 <u>f/</u> 138	118 563 350 158	132 598 50 312 157	148 646 51 305 155	169 677 50 288 134	184 732 50 224 134
Private	223	137	146	142	130	151	151

For sources and methodology, see Appendix A.

Annual averages.

Included in state employment. 9 H @ d c o

Negligible.

Included in nonproductive services.

Included in banks and financial institutions.

Including services not elsewhere classified.

FOR OFFICIAL USE ONLY

Table

Women Employed in the Nonagricultural Branches of the Socialist Sector in Poland ay 1953-57

Branch	1953	1954	1955	1956	1957
		Thousand Women			
Total	1,749.9	1,863.6	<u> 1,912.8</u> b/	2,069.1	2,092.6
Industry and handicrafts Construction Transport and communications	742.9 96.1 77.0	783.5 94.5 82.6	813.5 88.6 85.3	864.6 87.9 89.0	887.1 77.6 90.4
Communal economy Social and cultural services Administration Nonproductive services <u>c</u> /	307.2 307.2 142.8 54.3 <u>a</u> /	33.2 33.2 151.9 60.5 <u>a/</u>	25.5.5 4.25.5.3 37.3.6. <u>b</u> / 149.8 23.4	46.3 437.1 143.7 166.1	1,050.4 1,58.2 1,13.4 1,13.1
	Percent of Total	Total Employed Persons	ons e/		
Total	35	33	33 ₺/	33	33
Industry and handicrafts Construction Transport and communications Trade Communal economy Social and cultural services Administration Nonproductive services c/	3 7 3 8 4 7 2 8 3 2 2 8 6 7 2 8 9	84.59 84.59 10.	8 # \$ \$ \$ \$ \$ \$ \$ \$ \$	8 5 5 8 8 5 5 8 8 6 6 8 8 8 9 9 9 9	33 465 33 33 33 33

a. For 1953 and 1954, data are annual averages; nor 1970, 1970, 1970, 1970.

b. Excluding physicians and the workers of scientific research institutes. I/

c. Including services not elsewhere classified.

d. Including a residual not accounted for in the source. Figures may not be comparable to those for later years.

e. Percentage of the total number of persons, men and women, employed in the nonagricultural branches of the socialist sector of the economy.

FOR OFFICIAL USE ONLY

Table 5

Industrial Employment in the Socialist Sector in Poland, by Branch a 1950, 1956-57 b

		Thousand Persons	Persons
Branch	1050	730 1	
בסיים דרי ויין יין יין יין יין יין יין יין יין י	7320 2	TA20	7321
Total	2,059	2,803	2,900
Electric power	23	29	29
Fuels and coke chemicals	272	358	373
Ferrous metals	115	130	132
Nonferrous metals	82	39	39
Metalworking and machine building	396	665	702
Chemicals, rubber, and salt	123	7,4,7	154
Building materials, glass, ceramics, and other minerals	139	221	229
Paper and wood products	157	197	197
Textiles and clothing	473	469	684
Leather, fur, and footwear	52	103	103
Food, fats, soaps, and cosmetics	508	346	349
Printing, cultural objects, and miscellaneous	37	<del>1</del> 9	99

b. Annual averages.

shown in Table 3 (p. 5, above) for socialized industrial employment may be due to the inclusion of private industry (excluding handicrafts) in the figure shown above. c. As given in the source; the discrepancy of 57,000 between this figure and that

ω.

Table 6

Structure of Industrial Employment in Poland a/\*
31 December 1956

	Thousand Persons
Industry	Industrial Employment
Total	<u>2,674.7</u>
Electric power $\underline{b}/$ Fuels and coke chemicals	<u>37.7</u> <u>367.3</u>
Hard coal mines Brown coal mines Coke ovens Briquette plants Crude petroleum and natural gas mines Petroleum refineries Peat mining and processing Coal tar derivatives Gas works Other	321.8 4.2 13.1 1.0 5.4 3.5 1.6 4.6 11.1 1.0
Ferrous metals	124.8
Ore mining and primary processing Metallurgy (blast furnaces, steelworks, and rollin mills)	12.1 g 112.7
Nonferrous metals	<u>39.5</u>
Ore mining and primary processing	<u>17.5</u>
Zinc and lead Copper	12.1 5.4
Metallurgy	22.0
Metalworking and machine building	649.5
Metalworking	<u>161.1</u>
Electric wire and cable Steel constructions	7.7 2.7

<sup>\*</sup> Footnotes for Table 6 follow on p. 14.

FOR OFFICIAL USE ONLY

#### Table 6

Structure of Industrial Employment in Poland a/ 31 December 1956 (Continued)

	Thousand Persons
Industry	Industrial Employment
Metalworking and machine building	
Metalworking (Continued)	
Independent foundries Wire and screw products Sheet metal (excluding consumer goods) Heating and plumbing equipment Handicraft and agricultural tools Consumer metal products c/	28.4 28.9 5.6 11.1 13.3 63.4
Machine building	385.2
Boilers, turbines, and diesel engines Generating and transmitting apparatus Other electrical equipment d/ Machine tools Mining machinery Metallurgical and coke machinery Chemical machinery Minerals and ceramics machinery Textile machinery Food machinery Machinery for other industries Construction and road-building machinery Machinery for agriculture and forestry Automotive equipment (including tractors) Railroad rolling stock Shipbuilding Spare parts for transport equipment Other transport equipment Measuring and laboratory instruments	18.2 34.5 23.2 19.1 14.6 8.8 7.1 2.4 11.8 6.1 8.0 23.8 25.3 38.2 30.0 19.4 12.0 3.4
Ball bearings Pumps, safety, medical, trade, and cultural equipme Machinery and equipment not elsewhere classified	8.3 5.1 ent 13.1 52.8

FOR OFFICIAL USE ONLY

#### Table 6

Structure of Industrial Employment in Poland a/ 31 December 1956 (Continued)

	Thousand Persons
Industry	Industrial Employment
Metalworking and machine building (Continued)	
Metalworking repair shops	103.2
Railroad repair shops Automotive and aircraft Ships Agricultural machinery Industrial and construction machinery Other	44.1 10.9 7.0 4.0 27.8 9.4
Chemicals	<u>116.9</u>
Mining and primary processing Inorganic chemicals Fertilizers Insecticides and other agricultural chemicals Dyes and intermediates Organic chemicals not elsewhere classified Industrial plastics and plastic products Artificial fibers Wood derivatives and industrial gases Paints, pigments, and lacquers Explosives and fireworks Laboratory chemicals Chemicals for miscellaneous industrial use Pharmaceuticals Other chemicals for consumer use	3.5 10.5 12.8 1.4 6.0 7.6 5.8 21.4 3.9 4.2 14.3 1.4 4.8 14.7 4.6
Rubber	<u>22.1</u>
Industrial products Motor vehicle products Footwear Other	7.7 3.9 7.8 2.7

Structure of Industrial Employment in Poland a/31 December 1956 (Continued)

	Thousand Persons
Industry	Industrial Employment
Building materials	<u>163.5</u>
Quarrying and primary processing Cement Lime Gypsum Bricks, tiles, drains, and clinkers Concrete and prefabricated elements Stone cutting and finishing Dutch tile Refractory and related products Tar paper and other construction materials	34.4 10.8 13.3 1.2 53.5 20.8 3.6 4.7 14.4 6.8
Glass and porcelain	<u>49.6</u>
Flat glass Glass for use in construction Glass for use in industry Household glass products Porcelain and faience for technical use Porcelain and faience for household use Other	3.2 1.0 15.3 9.2 5.4 8.3 7.2
Minerals not elsewhere classified (including products graphite and asbestos)	of <u>5.4</u>
Wood e/	<u>150.8</u>
Sawmills Plywood, veneer, and fiber board Wood products for construction Crates and boxes Furniture and furniture repair Household, sport, and school articles Matches Other	51.8 8.1 13.7 7.0 54.4 4.0 2.4 9.4

Table 6

Structure of Industrial Employment in Poland a/
31 December 1956
(Continued)

	Thousand Persons
Industry	Industrial Employment
Paper	<u>34.8</u>
Wood pulp and cellulose Paper and paperboard Paper products	5.0 18.5 11.3
Textiles	<u>342.7</u>
Primary processing of raw materials Cotton textiles Wool textiles Rayon fabrics Bast fibers Knitted wear Stockings and socks Felt and felt products Carpets, rugs, and curtains Other	12.6 124.8 84.0 17.4 29.7 27.6 15.8 6.3 10.8
Clothing (excluding knitted wear and shoes) Leather and leather footwear	<u>92.8</u> 74.4
Tanneries Technical leather articles Saddlery and sport articles Gloves Shoes, machine-made Shoes, hand-made, and shoe repairs Other	8.5 3.0 5.9 2.0 30.5 21.8 2.7
Fats, soaps, and cosmetics	10.3
Technical fats and fat products Soap and detergents Cosmetics and perfumes	5.0 3.3 2.0

Table 6

Structure of Industrial Employment in Poland a/
31 December 1956
(Continued)

	Thousand Persons
Industry	Industrial Employment
Food	<u>324.0</u>
Meat slaughtering and processing Sea fishing and fish processing Dairy products Grain mills Bakeries Sugar Confectionery Beverages Potato processing Processing of fruits, vegetables, and mushrooms Tobacco processing and products Other	49.0 14.9 43.7 26.6 37.5 39.1 23.2 39.2 7.7 10.3 14.5 18.3
Salt Printing and cultural products Other industries	2.7 46.3 19.6

a. <u>9</u>/. Excluding employment in handicrafts and 103,700 persons employed in the administration of multiplant enterprises.

b. Excluding employment in establishments selling electrical energy and in the distribution network.

c. Including radio equipment, light bulbs, bicycles, motorcycles, and sports equipment, as well as other consumer metal products.

d. Excluding appliances, radios, and light bulbs.

e. Excluding felling and primary processing of timber, which is classified under forestry.

FOR OFFICIAL USE ONLY

Table 7

Industrial Employment in the Socialist Sector in Poland by Branch and by Location  $\underline{\mathbf{a}}/$  31 December 1957

Persons

Metalworking and Machine Building	688,460	23,86 38,0611 38,086 16,173 16,173 17,144 17,144 11,5144 11,995 1	
Ferrous and Nonferrous Metals	172,090	2,138 0 0 0 652 7,638 0 1,364 0 2,799 117,433 117,433 117,433 8,067 8,249	
Fuel and Coke- Chemical Processing	376,377	1,385 122 122 851 1,459 3,459 119 151 691 691 2,578 2,578 2,578 2,578 2,578 2,144 27,160	
Electric	38,147	1,925 1,090 1,477 1,984 1,984 1,984 1,105 1,573 1,573 1,307 1,307 1,43	-
Total Industrial Employment	2,810,867	147,188 130,711 69,762 112,225 1120,674 121,074 124,599 62,353 37,242 103,068 61,951 60,439 232,158 105,489 738,781 156,135	
Location	Poland	City of Warsaw Warsaw Bydgoszcz City of Poznan City of Lodz Lodz Kielce Lublin Blalystock Olsztyn Gdansk Koszalin Szczecin Zielona Gora City of Wroclaw Wroclaw Wroclaw City of Krakow Krakow Krakow	

a. Excluding 99,597 persons employed in enterprises which had plants in different prov-- 15 inces. 10/

# Table 7

FOR OFFICIAL USE ONLY

Industrial Employment in the Socialist Sector in Poland by Branch and by Location
31 December 1957
(Continued)

Persons	Paper	35,064	931	3,187	563 751	1,494	836	1 2 2 3 3 3	36	13	0	721	227	966.	726	130	6.024	3,1%	7,668	1,124	3,974	30	
	Wood	156,083	4,234	12,806	15,045	3,561	7,109	6,364	5,902	4,477	9,972	10,774	6,850	4,015	7,204	1,784	14,379	7,656	12,724	1,605	8,419	4,793	
	Glass, Porcelain, and Falence	<u>50,696</u>	1,773	2,127	4, 368	505	4,937	2,202	2,049	233	379	643	171	102	1,186	. 681	11,625	1,370	7,324	1,585	1,897	2,087	
(Continued)	Extraction of Minerals and Building Materials	186,549	6,353 6,650	7,548	2,191 8,715	1,296	5,010	17,696	4,340	3,754	2,218	5,411	1,748	2,546	6,301	2,393	22,821	16,735	32,807	5,198	19,875	5,937	
	Chemicals, Rubber, Fats, Soaps, and Cosmetics	160,093	11,789 7,442	16,001	3,475	7,940	13,699	8,053	1,797	1,055	369	3,724	148	4,460	4 <b>,</b> 198	3,660	12,560	0,040	21,403	7,626	12,958	6,087	
	Location	Poland	City of Warsaw Warsaw	Bydgoszcz City of Posnan	Poznan	City of Lodz	Lodz	Kielce	Lublin	Bialystock	Olsztyn	Gdansk	Koszalin	Szczecin	Zielona Gora	City of Wroclaw	Wroclaw	Opole	Katowice	City of Krakow	Krakow	Rzeszow	

FOR OFFICIAL USE ONLY

Table 7

Persons	Printing, Cultural Objects, and Miscellaneous	69,843	15, 256 2, 2, 2, 4, 7, 7, 7, 2, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,
Industrial Employment in the Socialist Sector in Poland by Branch and by Location 31 December 1957 (Continued)	Food and Salt	320,778	14, 813 28,955 29,622 39,878 10,883 11,047 12,068 11,015 11,015 11,015 11,015 11,015 11,015
	Leather, Fur, and Footwear	86,454	3,080 1,634 1,634 3,769 3,769 3,330 1,027 1,170 1,
	Clothing	112,163	7,951 12,041 12,041 12,042 12,068 12,068 12,004 12,004 12,004 13,003 13,003 15,003
	Textiles	358,070	8, 291 8, 439 3,110 600 120, 545 48,086 10,048 10,048 11,335 12,591 12,591 10,624 10,624 10,624 10,624 10,624 10,624 10,624 10,624
ij	Location	oland	City of Warsaw Warsaw Bydgoszcz City of Poznan City of Lodz Lodz Kielce Lublin Bialystock Olsztyn Glansk Koszalin Szczecin Zielona Gora City of Wroclaw Wroclaw Wroclaw Opole Katowice City of Krakow Krakow

FOR OFFICIAL USE ONLY

#### APPENDIX A

#### METHODOLOGY

In Tables 2 and 3\* of this research aid, data are presented separately for the state, cooperative, and private sectors of the individual branches of the economy. In the absence of published data, it was necessary to estimate private employment in all branches except industry and handicrafts, and also to estimate employment in farm cooperatives, either from unofficial sources or from scattered official data. The estimates for 1958 shown in Tables 2 and 3 are tentative, even for the socialist sector, because as yet little information has been made available for 1958. The sources and methods used to obtain the data shown in these tables are described below.

#### 1. Total Employment.

Total employment is the sum of employment in agriculture, forestry, and nonagricultural branches.

#### 2. Agriculture and Forestry.

The totals for agriculture and forestry are the sums of the estimates for agriculture and for forestry, each series being derived independently, as follows:

#### a. Agriculture.

#### (1) Total.

Estimates of employment in agriculture for the years 1950 and 1953-55 were derived from published figures on production and productivity, as follows 11/:

Year	Gross Agricultural Production (Billion Zlotys**)	Production per Agricultural Worker (Zlotys)	Derived Number of Workers (Thousand)
1950	133.3	18,928	7,042
1953	129.1	18,449	6,998
1954	136.7	19,451	7,028
1955	140.1	19,779	7,083

<sup>\*</sup> Pp. 4 and 5, respectively, above.

<sup>\*\*</sup> Neither the official exchange rate of 4 zlotys to US \$1 nor the current tourist exchange rate of 24 zlotys to US \$1 reflects the true dollar value of agricultural production.

FOR OFFICIAL USE ONLY

Estimates of agricultural employment for 1956-58 were derived by applying a derived employment-population ratio for 1955 (59.1) to estimates of the agricultural population in 1956, 1957, and 1958. To obtain the required population figures, estimates for 1950-55 were first derived from published data on production per capita, as follows 12/:

Year	Gross Production (Billion Zlotys)	Production Per Capita of Agricultural Population (Zlotys)	Derived Agricultural Population (Thousand)
1950	133.3	11,493	11,598
1951	123.4	10,617	11,623
1952	125.8	10,779	11,671
1953	129.1	10,984	11,753
1954	136.7	11,533	11,853
1955	140.1	11,698	11,976

It was then assumed that the agricultural population increased during 1956-58 at the average annual rate of the 1950-55 period, 0.64 percent. The resulting population figures are 12,053,000 for 1956, 12,130,000 for 1957, and 12,208,000 for 1958.

#### (2) Socialist Sector.

Figures on combined employment in socialist agriculture and forestry for the years 1950 and 1953-57 were obtained from the statistical yearbook of 1958. 13/ A decline of 38,000 in this combined sector was reported for 1958. 14/ Employment in forestry\* was subtracted from this combined total to obtain the employment figure for socialist agriculture.

#### (3) Cooperative Sector.

The data presented in Table 2\*\* pertain to "incomedividing" agricultural cooperatives, defined as those which "are registered and have worked collectively throughout the year, and at the end of the year have divided the income they attained from collective work." 15/ The estimate of employment in these cooperatives in 1955, 413,000, was derived from productivity data appearing in the statistical yearbook of 1957. 16/ Employment estimates for the other years were constructed from data on the number of families in such

<sup>\*</sup> See b, p. 21, below.

<sup>\*\*</sup> P. 4, above.

FOR OFFICIAL USE ONLY

cooperatives at the end of each year, 1950-57, appearing in the statistical yearbook of 1958. 17/ To obtain the estimates, an employment-perfamily ratio of 2.2 was computed for 1955 and applied to the family data for the years 1950, 1953-54, and 1956-57. It was assumed that there was no change in employment in this sector between 1957 and 1958.

#### (4) Private Sector.

Estimates of employment in the private sector for all years are residuals obtained by subtracting employment in the socialist and cooperative sectors from total agricultural employment. This method provided a consistent series and was used for all years in spite of the availability of a census for 1950 and an estimate for 1955 derivable from published productivity data. Both of these latter figures are about the same as the estimates for those years derived as residuals. Thus the census of 3 December 1950 gave 6,640,000, 18/compared with 6,661,000 shown in Table 2.\* For 1955 an employment estimate may be obtained by dividing a gross production figure of 114.2 billion zlotys by a figure on production per worker of 18,334 zlotys. 19/ The resulting estimate, 6,229,000, is not significantly different from the estimate of 6,151,000 shown in Table 2.

#### b. Forestry.

Employment in state forests, as reported by the Central Statistical Office, was presumed to represent the forestry sector as a whole. Although there may be a small amount of private, or even cooperative, employment in this sector, it is probably negligible. Figures for the years 1955-57 were obtained from the statistical year-books. 20/ For the years 1950 and 1953-54, estimates were derived from a reported index of employment in forestry during 1949-55. 21/ The estimate for 1958 was obtained by assuming a continuing upward trend at the same rate as in 1957.

#### 3. Nonagricultural Branches.

#### a. Total.

The totals of employment in the nonagricultural branches are the sums of separate estimates of employment in the socialist and private sectors.

<sup>\*</sup> P. 4, above.

FOR OFFICIAL USE ONLY

#### b. Socialist Sector.

Data on this sector for the years 1950 and 1953-57 were obtained directly from Polish sources, both for the sector as a whole and for each of its branches, such as industry or construction. 22/ The data for 1958 are estimates based primarily on a broadcast report 23/ and on Premier Gomulka's report to the 12th Plenum of the Central Committee. 24/ According to the broadcast report, employment in the socialist non-agricultural branches increased by 65,000 during 1958. With respect to the individual branches, \* Gomulka reported that employment in construction and state administration declined, but that increases of 24,000 occurred in transport and communications, 22,000 in trade, 15,000 in municipal economy, and 55,000 in social and cultural services. The decline in state administration was given as 64,000. The amount of the decline in employment in construction was not announced, and so it was assumed to be equivalent to the reported decline of 14,000 registered between the first 9 months of 1957 and the comparable period of 1958. 25/ Assuming that employment in the other nonindustrial branches, such as banks and financial institutions, remained unchanged, the residual increase of 27,000 may be attributed to industry and handicrafts and is fairly consistent with the increase in average employment of 43,000 which took place in this branch between the first 9 months of 1957 and the comparable period of 1958. 26/

#### c. State Sector.

Estimates of employment in the state sector as a whole\*\* and in each branch\* were derived by subtracting employment figures for the cooperative sector from the figures for the socialist sector obtained as described above.

#### d. Cooperative Sector.

Data on employment in the cooperative sector for the years 1953-57, for the sector as a whole,\*\* and for each branch\* were obtained from the Polish statistical yearbooks. 27/ Comparable data for 1950 are not available. Employment in 1958 was estimated by assuming that the percentage employment change in each branch was the same as that for the socialist sector as a whole in that branch.

#### e. Private Sector.

Employment in the private sector in each of the five major branches\* was estimated as described below, and then added to obtain the figures for total employment in this sector.\*\*

<sup>\*</sup> See Table 3, p. 5, above.

<sup>\*\*</sup> See Table 2, p. 4, above.

FOR OFFICIAL USE ONLY

#### (1) Industry and Handicrafts.

Data on employment in private industry and handicrafts are available from Polish sources for the years 1950 28/ and 1953-57. 29/ The estimate for 1958 was obtained from a broadcast report on employment in private handicrafts, 30/ supplemented by the assumption that employment in private industry alone was unchanged from the 1957 level.

#### (2) Construction.

The figure for private employment in construction in 1950 is from the census of 3 December 1950. 31/ The figures for 1953-54 are from the statistical yearbook of 1955. 32/ Average employment in private construction enterprises was reported to be 221 in 1955 and 48 in 1956. 33/ Such employment was therefore assumed to have been negligible in 1957 and 1958.

#### (3) Transport and Communications.

The figure for private employment in transport and communications in 1950 (4,000) is from the census of 3 December 1950. 34/Private employment in this branch was therefore assumed to have been negligible during the 1953-58 period.

#### (4) Trade.

Estimates of private employment in trade for the years 1950-55 were obtained from a Polish source. 35/ The estimates for 1956 and 1957 were derived by projecting the 1955 estimate by the rate of change in the reported number of establishments in the private trade sector. 36/ Employment in 1958 was assumed to have been the same as in 1957.

#### (5) Other.

The figure for other private employment in 1950 is from the census of 3 December 1950. 37/ To obtain estimates for the years 1953-55, it was assumed that employment in this sector decreased at the same rate as did employment in private industry and handicrafts. The estimates for the years 1956 and 1957 were obtained by projecting the estimate for 1955 at the rate of change in the reported number of persons paying the turnover tax in the private sector of this branch. 38/Employment in 1958 was assumed to have been the same as in 1957.

FOR OFFICIAL USE ONLY

#### APPENDIX B

#### SOURCE REFERENCES

The estimates of population contained in Table 1 (p. 3, above) are based not only on the Polish yearbooks for 1956, 1957, and 1958 but also on unpublished data furnished by the Foreign Manpower Research Office of the Bureau of the Census.

1. Poland, Central Statistical Office. Rocznik statystyczny (Statistical Yearbook), vol 15, Warsaw, 1955. (hereafter referred to as Poland. Yearbook) Ibid., vol 16, Warsaw, 1956.
Ibid., vol 17, Warsaw, 1957.
Ibid., vol 18, Warsaw, 1958.

- <u>Ibid.</u>, vol 15, Warsaw, 1955, p. 288. <u>Ibid.</u>, vol 18, Warsaw, 1958, p. 334.
- 3. Commerce, Bureau of the Census. International Population Reports, series P-91, no 6, "Projections of the Population of Poland, by Age and Sex: 1958-76," 15 May 58, p. 8. Poland. Yearbook (1, above), vol 16, Warsaw, 1956, p. 45.
- Ibid., vol 17, Warsaw, 1957, p. 16, 18-20. <u>Tbid</u>., vol 18, Warsaw, 1958, p. 19, 21-24.
- 5. Commerce, Bureau of the Census. International Population
- Reports (3, above).
  Poland. Yearbook (1, above), vol 15, Warsaw, 1955, p. 202. Ibid., vol 17, Warsaw, 1957, p. 271. Ibid., vol 18, Warsaw, 1958, p. 328.
- 7. <u>Ibid.</u>, vol 17, Warsaw, 1957, p. 271. 8. Lissowski, W. "Majatek trwaly-praca-produkcja w przemysle polskim" (Fixed Capital, Labor, and Production in Polish Industry), Gospodarka planowa, no 7, Jul 58, p. 10-18. Poland. Yearbook (1, above), vol 17, Warsaw, 1957, p. 79-80. Ibid., vol 18, Warsaw, 1958, p. 87.
- 9. Poland, Central Statistical Office. Statystyka przemyslu: statystyka zakladow przemyslowych i rzemieslniczych 1956 (Industrial Statistics: Statistics of Industrial and Handicraft Establishments, 1956), Warsaw, Jun 58, p. 2-11.
- 10. Poland. Yearbook (1, above), vol 18, Warsaw, 1958, p. 106-107.
- 11. Ibid., vol 17, Warsaw, 1957, p. 112.

#### FOR OFFICIAL USE ONLY

- 12. Tbid.
- 13. Tbid., vol 18, Warsaw. 1958. p. 304.

#### FOIAb3b

- 15. Poland. Yearbook (1, above), vol 17, Warsaw, 1958, p. 118.
- 16. Ibid., vol 17, Warsaw, 1957, p. 123.
- 17. Ibid., vol 18, Warsaw, 1958, p. 155.
- 18. Tbid., vol 17, Warsaw, 1957, p. 27.
- 19. Tbid., p. 123.
- 20. <u>Ibid</u>., p. 169.
  - Tbid., vol 18, Warsaw, 1958, p. 188.
- 21. Broner, A., and Kulczycki, R. "Wydajnosc pracy spolecznej" (Labor Productivity), Wiadomosci statystyczne, vol III, no 2, Mar-Apr 58, Warsaw, p. 20-23.
- 22. Poland. Yearbook, vol 18, Warsaw, 1958 (1, above), p. 304. Kochanowski, T., and Obodowski, J. "Aktualne problemy zatrudnienia" (Problems of Employment Today), Nowe drogi, no 5, 9 May 58, p. 15-27.

#### FOIAb3b

- 24. Ibid., supplement, 15 Oct 58, p. 15-16.
- 25. Poland, Central Statistical Office. Biuletyn statystyczny (Statistical Bulletin), Warsaw, no 11, 1958, p. 19.
- 26. Ibid., p. 7.
- 27. Poland. Yearbook, vol 15, Warsaw, 1955 (1, above), p. 199.

  <u>Ibid.</u>, vol 17, Warsaw, 1957, p. 269.

  <u>Ibid.</u>, vol 18, Warsaw, 1958, p. 305.
- 28. CIA. FDD Summary no 1161, 12 Dec 56, p. 29-31.
- 29. Poland. Yearbook (1, above), vol 15, Warsaw, 1955, p. 98. Ibid., vol 17, Warsaw, p. 79, 106-107, 268. Ibid., vol 18, Warsaw, 1958, p. 112, 117.

#### FOIAb3b

- 31. Poland. Yearbook (1, above), vol 17, Warsaw, 1957, p. 26.
- 32. <u>Toid.</u>, vol. 15, Warsaw, 1955, p. 142.
- 33. Ibid., vol 17, Warsaw, 1957, p. 192.
- 34. <u>Ibid.</u>, p. 26.
- 35. Broner and Kulczycki, op. cit. (21, above), p. 20-23.
- 36. Poland. Yearbook (1, above), vol 18, Warsaw, 1958, p. 242, 247.
- 37. Ibid., vol 17, Warsaw, 1957, p. 26.
- 38. <u>Ibid.</u>, p. 300. <u>Ibid.</u>, vol 18, Warwaw, 1958, p. 356.

# Approved For Release 1999/09/08 : CIA-RDP79S01046A000600170001-7 FOR OFFICIAL USE ONLY